

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT ID CODE	PAGE OF PAGES *
2. AMENDMENT/MODIFICATION NO. PR-CI-04-10462/0002	3. EFFECTIVE DATE 07/15/04	4. REQUISITION/PURCHASE REQ. NO. PR-CI-04-10462	5. PROJECT NO. (If applicable)
6. ISSUED BY Environmental Protection Agency Contracts Management Division 26 W. Martin Luther King Drive Cincinnati, OH 45268	CODE	7. ADMINISTERED BY (If other than item 4) Not Applicable.	CODE
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) To All Offerors/Bidders.		(✓)	9A. AMENDMENT OF SOLICITATION NO. PR-CI-04-10462
		✓	9B. DATED (SEE ITEM 11) 06/16/04
			10A. MODIFICATION OF CONTRACT/ORDER NO.
			10B. DATED (SEE ITEM 13)
CODE	FACILITY CODE		

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

[X] The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers [] is extended, [X] is not extended.

Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods:

(a) By completing Items 8 and 15, and returning 1 copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)**13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS, IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.**

(✓)	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
	D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor [] is not, [] is required to sign this document and return _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

The purpose of this amendment is to: (1) modify the Statement of Work to correct Task 1.13 and revise the Delivery Schedule reflect deliverables for Tasks 1.12 and 1.13, (2) modify the Clause B.1, CONSIDERATION AND PAYMENT to reflect the SOW revision, and (3) modify Clause F.3, DELIVERY SCHEDULE, to reflect the SOW revision. The date by which proposals are due remains 7/22/2004, 3:30 PM local time. See page 2.

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) KATHLEEN A. ROE	
15B. CONTRACTOR/OFFEROR	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA /S/	16C. DATE SIGNED 7/15/2004
(Signature of person authorized to sign)		(Signature of Contracting Officer)	

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PREVIOUS EDITION UNUSABLE

30-105

STANDARD FORM 30 (REV 10-83)
Prescribed by GSA
FAR (48 CFR) 52.243

AMENDMENTS TO THE SOLICITATION

1. The Section B clause entitled "CONSIDERATION AND PAYMENT--ITEMIZED FIXED PRICES (EP 52.216-170) (APR 1984)" has been modified to add payments 1.L and 1.L for deliverables provided for SOW Tasks 1.12 and 1.13. The text is as follows:

The total firm, fixed price of this contract is _____. Payment will be made upon delivery and acceptance of required items as follows and as reflected in Clause F.3, Delivery Schedule. Partial payments are authorized per line item.

<u>Deliverable</u>	<u>Description</u>	<u>Fixed Price</u>
1.A	Report on Critical Review of Guidance and Tools	\$ _____
1.B	Outline of First Workshop Series	\$ _____
1.C	Course Materials for First Workshop Series	\$ _____
1.D	Report on Results for Phase I Efforts	\$ _____
1.E	Revised Workshop Modules	\$ _____
1.F	New Modules Based on Decontamination Lessons Learned and Filtration Systems Research by NHSRC	\$ _____
1.G	Report on Effectiveness of Phase II Workshops	\$ _____
1.H	Revise Modules for Use in Phase III	\$ _____
1.I	World Wide Web Based Instructional Materials	\$ _____
1.J	Final Report on Effectiveness of Workshops	\$ _____
1.K	New module based on the NHSRC sponsored research on retrofit options for building protection	\$ _____
1.L	Present two short courses during	\$ _____

Phase III

2.A	Report on the Results of Graduate and Undergraduate Curricula Review	\$ _____
2.B	Report Containing All Course Materials for the 3-hour Course	\$ _____
2.C	Homework Problems for Existing Classes	\$ _____
2.D	Senior Design Problems for Existing Classes	\$ _____
2.E	Report on Modifications Needed to Existing Building Design Tools	\$ _____
3.0	Final Report	\$ _____

2. The Section F clause entitled "DELIVERY SCHEDULE (EP 52.212-160) (APR 1984)" has been modified to reflect deliverables 1.K and 1.L for SOW Tasks 1.12 and 1.13. The text is as follows:

The following items shall be delivered under this contract:

Deliverable	Title	Qty	Within Specified
			Number of Months After Contract
Effective Date			
1.A	Report on Critical Review of Guidance and Tools	1	4
1.B	Outline of First Workshop Series	1	5
1.C	Course Materials for First Workshop Series	1	7
1.D	Report on Results for Phase I Efforts	1	13
1.E	Revised Workshop Modules	1	14
1.F	New Modules Based on Decontamination Lessons Learned and Filtration Systems Research by NHSRC	1	16
1.G	Report on Effectiveness of Phase II Workshops	1	25
1.H	Revise Modules for Use in Phase III	1	28
1.I	World Wide Web Based Instructional	1	30

	Materials		
1.J	Final Report on Effectiveness of Workshops	1	36
1.K	New module based on NHSRC sponsored research	1	30
1.L	Two short courses during Phase III	1	36
2.A	Report on the Results of Graduate and Undergraduate Curricula Review	1	9
2.B	Outline of 3-hour Course	1	9
2.C	Report Containing All Course Materials for the 3-hour Course	1	24
2.D	Homework Problems for Existing Classes	1	12
2.E	Senior Design Problems for Existing Classes	1	24
2.F	Report on Modifications Needed to Existing Building Design Tools	1	36
3.0	Final Report	1	38

3. The attachment entitled "STATEMENT OF WORK" has been modified to correct the Phase number under Task 1.13 and to revise the Delivery Schedule to reflect deliverables for Tasks 1.12 and 1.13. The text is as follows:

STATEMENT OF WORK

Development of Materials for the Education of Building Professionals

Background

EPA Office of Research and Development has established the National Homeland Security Research Center (NHSRC) to develop tools, techniques, technology, and guidance to minimize the impact of terrorist Chemical or Biological (CB) attack on buildings and to provide similar products for decontaminating buildings contaminated by CB attack. The ultimate usefulness of these products shall depend on how rapidly building owners, operators, and designers and decontamination professionals adopt and implement the tools, techniques, technologies and guidance developed by NHSRC.

The National Academy of Science (NAS) review of the NHSRC Safe Building program identified the need to inform practicing professionals about the products of the program's research and the need to include homeland security issues in the education of the next generation of professionals as important

tasks for the Safe Building Program.

Objective

The objective of this contract is to develop tools for building professionals, continuing education modules to inform practicing professionals, to use the modules to provide continuing education, to develop materials on safe building issues for use in graduate and undergraduate education, and to use these materials in teaching graduate and undergraduate students.

Statement of Work

The scope of work is divided into three tasks: Task 1 covers tasks related to continuing education requirements. Task 2 covers activities related to the education of graduate and undergraduate students. Task 2 activities shall be conducted in parallel with Task 1. Task 3 requires the preparation of a final report upon completion of all tasks.

Task 1: Continuing Education

Because of the need to provide immediate educational material and the need to provide updated material that reflects the results of ongoing research, the continuing education portion of the project is divided into three phases. The objective of Phase I is to get the best current information available. The objective of Phase II is to update the educational materials with the interim results of the NHSRC Safe Building Program. The objective of Phase III is to update the educational materials with the final results of the Safe Building Program.

Phase I. Develop, Conduct and Evaluate a One-Day Continuing Education Workshop

- 1.1 Conduct a critical review and assessment of the currently available guidance and tools available for building owners, operators, and designers for dealing with terrorist CB attacks. The review shall include analysis of the information on dealing with accidental releases of hazardous materials and information from the Department of Defense's programs on community response to accidental release of hazardous materials from military bases. This review shall include an assessment of the tools available to building professionals for assessing and identifying the vulnerabilities and risks of specific buildings. The strengths and weaknesses of the available guidance and tools shall be evaluated. The purpose of the review is to identify the important homeland security issues that building professionals must deal with to reduce vulnerability to CB attack. The review is not intended to produce new guidance or to develop a consensus guidance statement. The review shall include guidance

- offered for dealing with both indoor and outdoor attacks. The critical review shall include analysis of the impacts of the guidance on building operation, occupant safety, dispersion of attack agents, practicality of guidance, and consistency of guidance with fire codes, building codes, etc. The analysis shall include analysis of the types of building modifications necessary to implement the guidance. For example, what modifications are necessary to the control system for the heating, ventilating, and air conditioning (HVAC) system for various common commercial buildings. The contractor shall convene a small stakeholder group (up to 20) of building professionals, code developers, owners, and operators to participate in this critical review. The contractor shall determine the meeting location/arrangements and provide travel and honorariums for stakeholders, if required. At the conclusion of the review the contractor shall prepare a report detailing the results of the review. This document shall allow building professionals to evaluate usefulness of various guidance document for particular situations.
- 1.2 The contractor shall prepare an outline for a one day workshop to inform building professionals, owners, and operators of the issues involved in dealing with possible CB attack. The objective of this workshop is to present the results of the critical review to building professionals, owners, and operators and code developers.
 - 1.3 After the Project Officer has reviewed and approved the source outline, the contractor shall use the results of the critical review and the source outline to develop a one day continuing education workshop to inform building professionals about the need for dealing with potential terrorist CB attack, the options for dealing with the attack, and the various issues and interrelated factors that must be considered. The workshop shall be organized in modules with each module covering a specific topic. Possible module topics are: HVAC system modifications, filtration, control system modifications, building modifications, building code issues, response planning, and occupant training and drills. The contractor shall prepare written material for each module. The material shall be in loose leaf format that can be updated as new information becomes available.
 - 1.4 The contractor shall use the modules developed in task 1.3 to conduct two short (one-day) courses. One short course shall be conducted at a site near the contractor, and one at a remote site. If possible, the short course at the remote site should be offered in conjunction with a major meeting of one of the professional associations representing building professionals, for example ASHRAE. For each short course the contractor shall obtain evaluation forms from the attendees. The contractor shall recruit students (expect 10-20), provide facilities, and reproduce course materials.

- 1.5 After each short course, the contractor shall evaluate the usefulness and effectiveness of the educational materials prepare a report detailing the results of the evaluation. This report shall include recommendations for improving the materials.
- 1.6 A report on the results of Phase 1 of the program shall be prepared. The report shall contain recommendations for improving the materials and presentations. This report shall cover all Phase I activities.

Phase II. Revise Modules and Develop New Modules

- 1.7 The contractor shall revise the workshop developed under Phase I to incorporate the results of NHSRC and the published results for research sponsored by other organizations. The revisions to the course materials shall include revision to the modules used in Phase I and the development of new modules.
- 1.8 The contractor shall develop a module (1to 2 hours) based on the results of the NHSRC lessons learned from decontamination of anthrax contaminated buildings project shall be prepared. A second module (1to 2 hours) based on the results of NHSRC research on use of filtration systems shall also be prepared. The EPA Project Officer will provide the contractor with the reports and tools from the lessons learned project and the filtration systems research for use in developing these new modules.
- 1.9 The contractor shall use the revised modules to present two short (one-day) courses during Phase II of the contract. One short course shall be conducted at a site near the contractor, and one at a remote site. If possible, the short course at the remote site should be offered in conjunction with a major meeting of one of the professional associations representing building professionals, for example ASHRAE. For each short course the contractor shall obtain evaluation forms from the attendees.
- 1.10
 - a. After each short course, the contractor shall evaluate the usefulness and effectiveness of the educational materials prepare a report detailing the results of the evaluation. This report shall include recommendations for improving the materials.
 - b. After all short courses have been completed the contractor shall evaluate the usefulness and effectiveness of the educational materials prepare a report detailing the results of the evaluation. This report shall include recommendations for improving the materials.

Phase III. Finalize Materials and Development of Web Based Modules

- 1.11 The contractor shall revise the workshop developed under Phase II to incorporate the results of NHSRC and the published results for research sponsored by other organizations. The revisions to the course materials shall include revision to the modules used in Phase II and the development of new modules.
- 1.12 The contractor shall develop a new (1 to 2 hour) module based on the NHSRC sponsored research on retrofit options for building protection. The government shall provide the contractor with the results of the retrofit options research.
- 1.13 The contractor shall use the revised modules to present two short courses during **Phase III** of the contract. The short course procedures and short course evaluation procedures in subtasks 1.2 and 1.3 shall be followed.
- 1.14 The contractor shall develop a web based version of the workshop materials. The materials shall be developed so that they can be accessed using the World Wide Web on the internet or from a CDROM or DVDROM

Task 2: Undergraduate and Graduate Education

- 2.1 The contractor shall review the graduate and undergraduate curricula in disciplines such as chemical engineering, architectural engineering, mechanical engineering, and civil engineering that are related to building design, construction, and operation and CB decontamination to determine appropriate curricula modifications for introducing CB protection and decontamination issues into the curricula. The contractor shall prepare a report based on the results of this review. A small expert panel may be convened to support this review.
- 2.2 The contractor shall prepare a 3 credit hour interdisciplinary senior or graduate level course to introduce students to the issues involved in CB protection and decontamination. For this course the contractor shall develop lecture material and student handouts, homework problems, and examination problems. The course shall include topics such as HVAC system design and operation, economics, impact of CB attack, decontamination methods, analysis of buildings to determine risk of attack, and filtration systems. The contractor shall prepare an outline of the course for review by the project officer. After the Project Officer has approved the outline, the contractor shall develop the course. Credit for the 3 credit hour college credit course must be transferable according to the guidelines for transferring credit published by the American Council on Education (ACE), the Council on Higher Education Accreditation (CHEA), and the American Association of Collegiate Registrars and Admissions Officers (ACRAO).

- 2.3 The contractor shall prepare instructional material for use in the education of graduate and undergraduates students. The instructional material shall consist of materials that can be used to supplement existing classes. Sets of problems on homeland security issues related to buildings and decontamination shall be designed for use as homework problems, including the following. The Contractor shall determine the number and type of problems.
- a. Sets of problems on homeland security issues related to buildings and decontamination that can be used on college level examinations.
 - b. A set of design problems suitable for use as senior design problems. One set of design problems shall address building design, construction, and operation issues to minimize the impact of CB attack. These design problems shall address issues such as economics, impact on normal building operation, technical feasibility, impact on indoor air quality, impact on energy use, and benefits not related to CB protection.
 - c. A second set of design problems shall address issues related to the design, construction, and operation of decontamination system for large buildings. These design problems shall be designed to address issues such as safety, economics, disposal of wastes generated by decontamination, and transport of decontamination materials to the site.
 - d. Materials that can be used by professors to introduce their students to homeland security issues related to buildings and decontamination over the course of one to four lectures.
- 2.4 The contractor shall review the design tools that are used by professionals and that are taught in universities and recommend modifications to the tools that shall make it possible to better address homeland security issues in the building design process.

Task 3: Final Report

- 3.0 Upon completion of all tasks the contractor shall prepare a final report that includes an analysis of the impact of the continuing education tasks, the usefulness of the graduate and undergraduate education tasks, and recommendations for improving continuing education and graduate and undergraduate education to ensure that building professionals, owners, and operators are fully informed of the issues involved in CB protection and decontamination.

Delivery Schedule

All deliverables shall be timely, complete, grammatically correct, and in the specified format. Unless otherwise specified, deliverables shall be provided to the Project Officer in electronic format and one hard copy. The deliverables and schedule for delivering them are:

Task 1: Continuing Education:

- A. Report on Critical Review of Guidance and tools 4 months after start of contract. (Subtask 1.1)
- B. Outline of first workshop series 5 months after start of contract. (Subtask 1.2)
- C. Course materials for first workshop series 7 months after start of contract. (Subtask 1.3)
- D. Report on results for Phase I efforts 13 months after start of contract. (Subtask 1.6)
- E. Revised workshop modules 14 months after start of contract. (Subtask 1.7)
- F. New modules based on decontamination lessons learned and filtration systems research by NHSRC 16 months after start of contract. (Subtask 1.8)
- G. Report on effectiveness of Phase II workshops 25 months after start of contract. (Subtask 1.10)
- H. Revised modules for use in Phase III, 28 months after start of contract. (Subtask 1.11)
- I. World wide web based instructional materials 30 months after start of contract. (Subtask 1.14)
- J. Final report on effectiveness of workshops 36 months after start of contract. (Subtask 1.10b)
- K. New (1 to 2 hour) module based on the NHSRC sponsored research on retrofit options for building protection within 30 months after start of contract (Subtask 1.12)**
- L. Present two short courses during Phase III of the contract within 36 months after start of contract (Subtask 1.13)**

Task 2: Graduate and Undergraduate Education:

- A. Report on the results of graduate and undergraduate curricula review 9 months after start of contract. (Subtask 2.1)
- B. Outline of 3 hour course 9 months after start of contract. (Subtask 2.2)
- C. Report containing all course materials for the 3 hour course (developed under subtask 2.2) 24 months after start of contract
- D. Homework problems for existing classes 12 months after start of contract. (Subtask

2.3a)

- E. Senior design problems for existing classes (developed under subtask 2.3b) 24 months after start of contract.
- F. Report on modifications needed to existing building design tools 36 months after start of contract (subtask 2.4)

Task 3: Final report on entire contract 38 months after start of contract.

Progress Reports: The contractor shall provide quarterly progress reports detailing the progress made during the reporting period. The quarterly report shall be due the 15th of the month following the end each quarter.